



**Green
Partners**

environmental
consulting

CORRECTING A MARKET FAILURE

Addressing environmental and social costs by internalizing externalities
in product pricing

Réka Soós - Green Partners
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www.greenpartners.ro

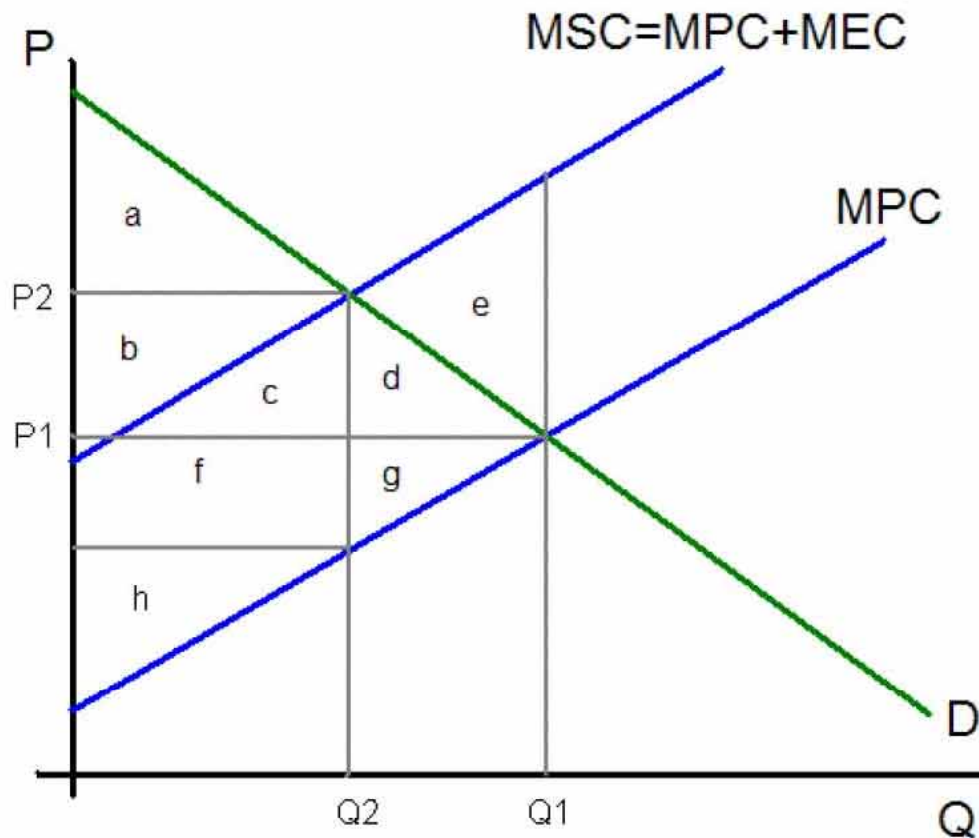
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Waste as a market failure

- An externality is a positive or negative effect of an economic transaction that is not accounted for in the price of that transaction
- Environmental impact is a negative externality of a product or a service if not accounted for in the price of that product or service
- Waste is a negative environmental externality of a product or service - a market failure

Internalizing externalities



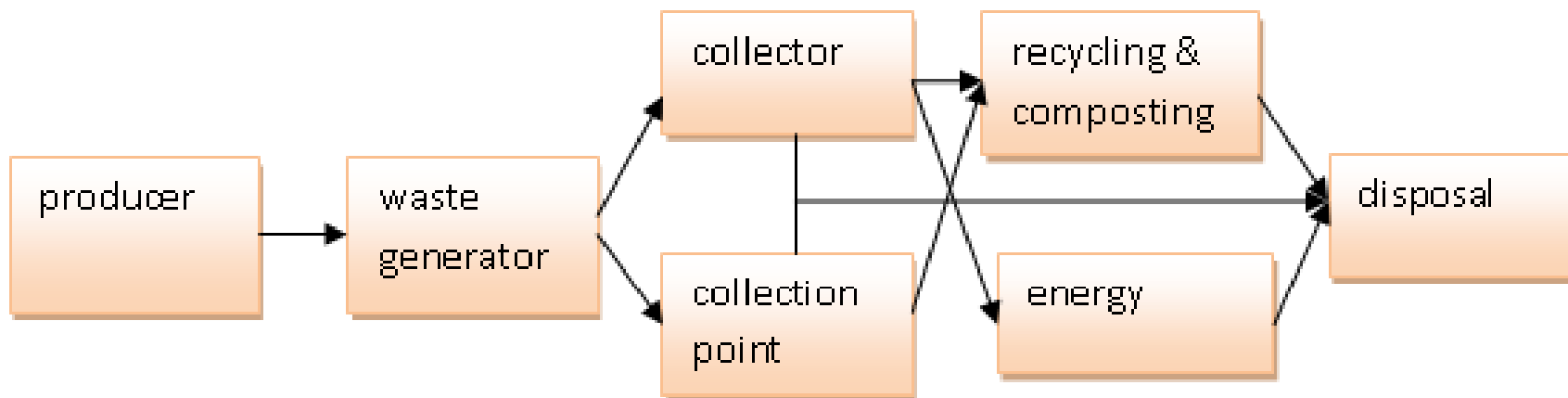
MPC= marginal
production cost

MEC = marginal
environmental cost

MSC= Marginal
social cost

D = demand

Correcting the market failure



1. Product pricing
2. Fee/tariff setting
3. Recyclables pricing

4. Energy pricing
5. Gate fee setting

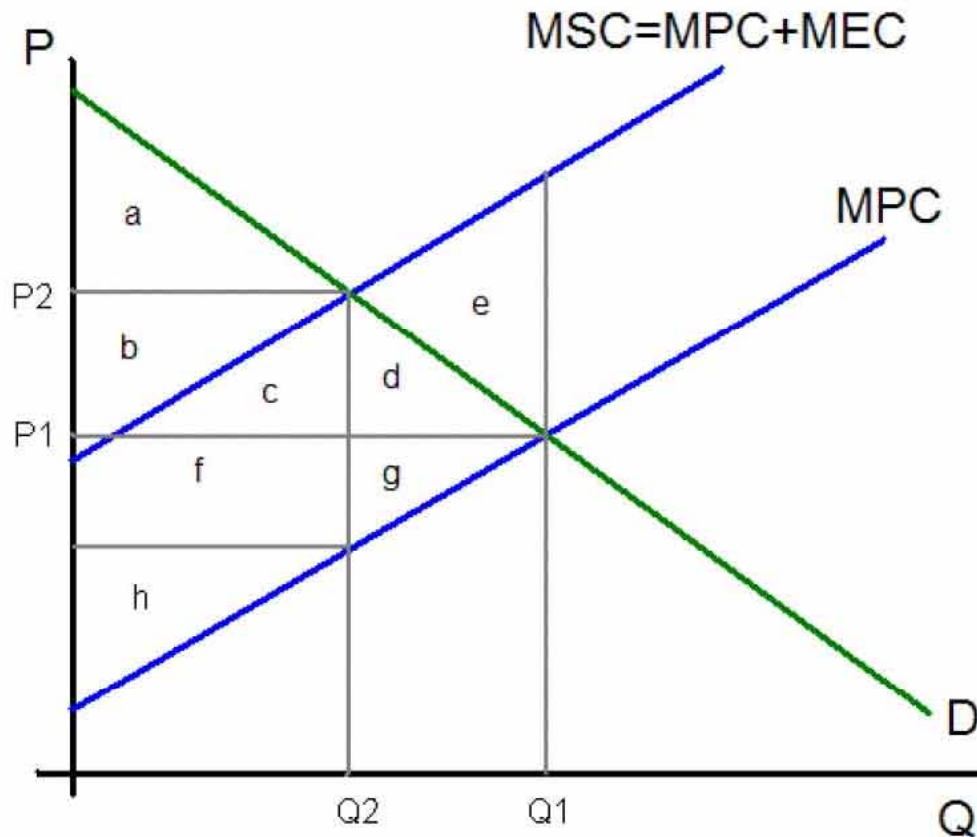
Incentives
Taxes
Subsidies

Correcting the market failure

Implementing the Polluter Pays Principle through different market interventions

1. Product pricing – grabbing it at the beginning and charging it directly to the consumer – association with product is direct and easy
also known as demand side management, extended producer responsibility, product stewardship
2. Waste management services – end of pipe solution, difficult to trace externality to producer/polluter

Product pricing for waste aversion



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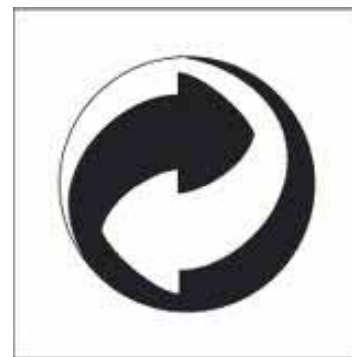
D = demand

Product pricing for waste aversion

- Tagging products for their footprint (waste, climate change, other pollution)
- Plastic bag tax – a big success around the world
- 17 cents in EU states, 5 to 25 cents in US states, the results are about 50% to 90% drop in plastic bag sales
- China plastic bag ban China's ban on thin plastic bags in June 2008 cut plastic bag usage by 66%, saving the country 1.6 million tons of petroleum. Prior to the ban, China consumers used up to 3 billion plastic bags per *day*, using *a third* of its imported oil to make plastics used in packaging
- Other countries banning or taxing plastic bags successfully are Ireland, Uganda, South Africa, Russia, Hong Kong

Product pricing for recovery and recycling

- The green dot scheme – Germany's response for compliance to the "Packaging and Packaging Waste Directive - 94/62/EC."
- Concept: consumers who see the logo know that the manufacturer of the product contributes to the cost of recovery and recycling
- The system is financed by a green dot license fee paid by the producers of the products
- Producers are encouraged to cut down packaging because this reduces their cost with the license



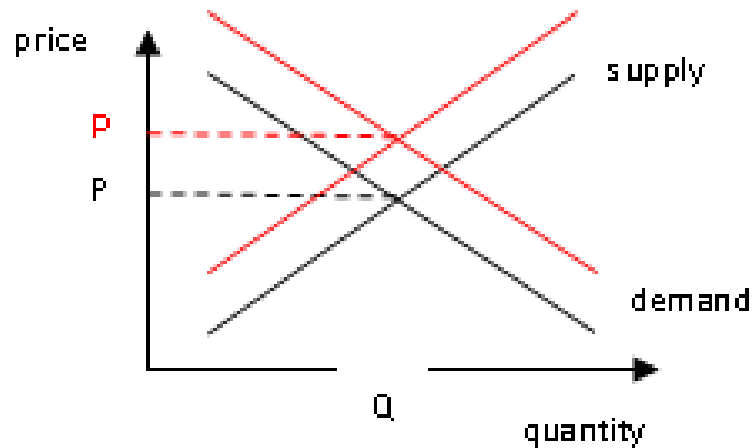
Product pricing for recovery and recycling

- Typical products: EEE, vehicles, batteries, packaging, tires, nappies
- deposit – refund
- % price reduction on return and buying a new product
- Implementation supermarkets, large industrial sites or collection points

Challenges in implementation

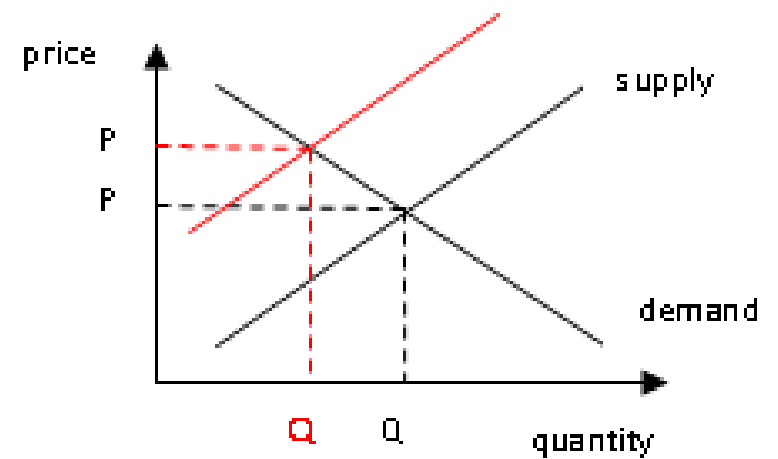
- Level playing field - municipality operated collection sites unevenly available to producers
- Competing collection schemes versus national collection schemes

Product pricing for green economy



Hard to substitute products

Green practices



Easy to substitute products

Waste aversion

Thoughts on product pricing

1. Developed world good at product pricing but also at waste generation !!!
2. Most reuse and waste aversion happens in the developing world

1. Incentive for producers to use less materials and design their product to last longer in order to cut costs
2. Incentive for R&D in recycling and reuse
3. Incentive for repair and remanufacturing

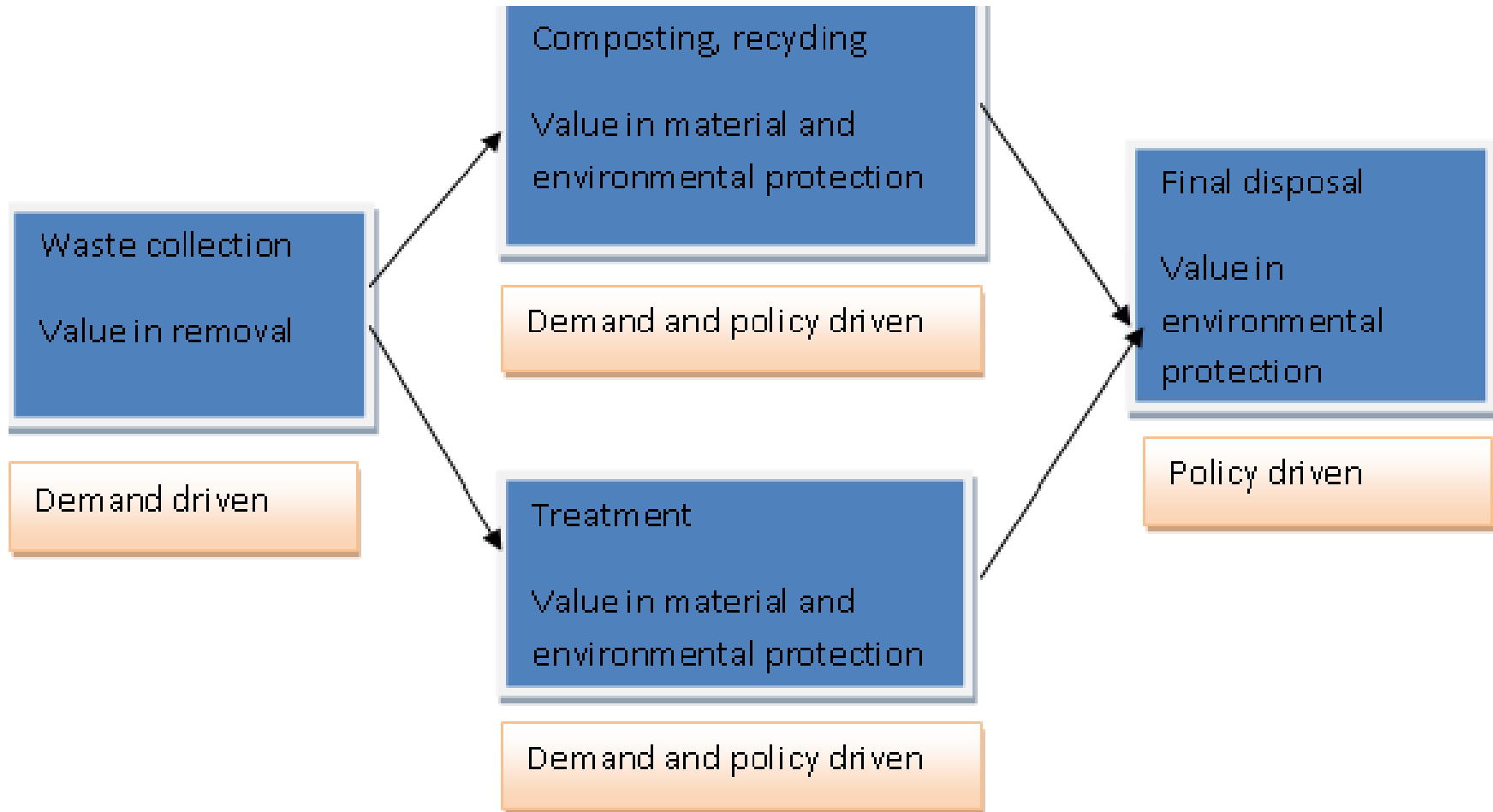
BUT

1. Might slow down technological innovation
2. EPR is generally applied to post-consumer waste
3. Increasing prices decreases availability to all – social justice issue

Front-end back-end policy mix

- Optimize policy measures: choose a set of measures that will achieve best results at least costs.
- The incremental cost of waste aversion: each additional unit of waste reduction will cost more.
- Most waste management technologies are sensitive to economies of scale.
- What other development priorities are competing for the money spent on subsidizing R&D for extending life of the product or improving recycling technologies?
- What are the social justice implications of the system? Is access to goods even? What income redistribution is caused by the market intervention?

Economics of waste management



The future ?

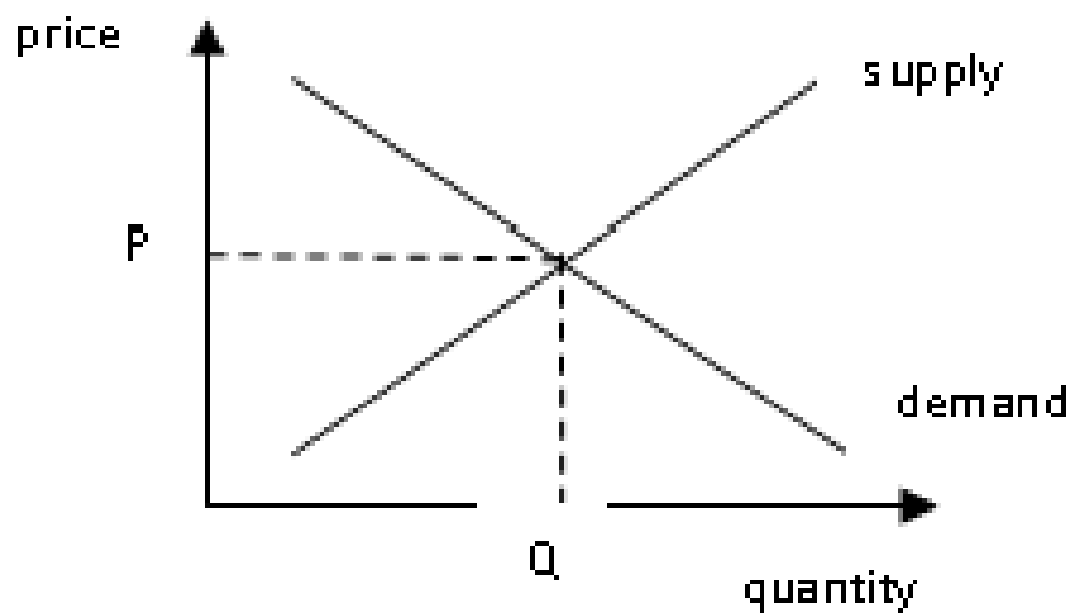
The future is green.

Green does not have to cost more.

Decoupling growth from pollution.

..... In the long run

The green economy



So in the meantime

Interfere with the market

Find your own financial policy mix

Where should we interfere?

How much internalizing?

What incentives?

How much cost recovery?

Who should pay?

Who should pay?





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**Thank you
for your time.**

Réka Soós

Director at Green Partners

Expert at the JI and CDM Accreditation Teams, UNFCCC

reka.soos@greenpartners.ro

mobile: +40 740 554 430

Green Partners Ltd.

Cluj-Napoca 400294

Fântânele 18, România

Tel./Fax: +40 264 589 291

gp@greenpartners.ro

www.greenpartners.ro